WHAT IS CLAIMED IS:

1   1. A communication apparatus comprising:

2   signal receive means for receiving signals, sent from an

3   identical sender by a code division multiple access

4   communication system, in search ranges of a predetermined time

5   interval which are different from each other in start timing of

6   receive;

7   correlation value computation means which computes a

8   value of correlation between the signal in each search range

9   received by the signal receive means and a pilot signal as a

10   known signal by receiving a plurality of signals sent at

11   different times from the sender and performing averaging in

12   each search range;

13   averaging times control means for setting the number of

14   times of signal averaging in such a manner that the number of

15   times of signal averaging is smaller in a search range in which

16   the correlation value computed by the correlation value

17   computation means is higher:

18   path detection means which permits the input of the

19   results of computation for each search range by the correlation

20   value computation means and, when the signal sent from the

21   sender is present in the search ranges, detects this signal;

22   and

23   finger means for superimposing. in terms of waveform,

24   paths detected by the path detection means on each other to

25   regenerate the signal sent from the sender.

1   2. A communication apparatus comprising:

2   signal receive means for receiving signals, sent from an

3 identical sender by a code division multiple access

4 communication system, in search ranges of a predetermined time

5 interval which are different from each other in start timing of

6 receive;

7   correlation value computation means which computes a

8 value of correlation between the signal in each search range

9 received by the signal receive means and a pilot signal as a

10 known signal by receiving a plurality of signals sent at

11 different times from the sender and performing averaging in

12 each search range;

13   search range width change means for combining a plurality

14 of search ranges, in which the correlation value computed by

15 the correlation value computation means is low, into one search

16 range;

17   path detection means which permits the input of the

18 results of computation for each search range, after change by

19 the search range width change means, by the correlation value

20 computation means and, when the signal sent from the sender is

21 present in the search ranges, detects this signal; and

22   finger means for superimposing, in terms of waveform,

23 paths detected by the path detection means on each other to

24 regenerate the signal sent from the sender.

1   3. The communication apparatus according to claim 1 or 2,

2 wherein the signal receive means comprises a plurality of delay

3 units different from each other in delay level to set a

4   plurality of receive start timings.

1   4. The communication apparatus according to claim 1 or 2,
2   wherein circuit devices for examining the correlation of
3   received signals in the plurality of search ranges and
4   performing path detection are provided independently of each
5   other, and the number of circuit devices provided is the same
6   as the number of search ranges.

1   5. The communication apparatus according to claim 1 or 2,
2   wherein a pair of circuit devices for examining the correlation
3   of received signals in the plurality of search ranges and
4   performing path detection are provided, and the processing of
5   received signals is carried out through time division by the
6   number of times equal to the number of search ranges.

1   6. The communication apparatus according to claim 3,
2   wherein the delay unit varies the delay level according to the
3   results of detection in the path detection means.